

CLAIMS

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00000-22301120

1. A glucose sensor comprising:  
an electrically insulating base plate,  
an electrode system including at least a working  
electrode and a counter electrode formed on said base  
plate, and  
a reaction layer which is formed in contact with  
or in the vicinity of said electrode system and contains  
at least glucose dehydrogenase whose coenzyme is pyrrolo-  
quinoline quinone,  
wherein said reaction layer further contains at  
least one additive selected from the group consisting of  
phthalic acid, a phthalate, maleic acid, a maleate,  
succinic acid, a succinate, triethanol amine, a triethanol  
amine salt, citric acid, a citrate, dimethyl glutaric  
acid, 2-(N-morpholino)ethane sulfonic acid, a 2-(N-  
morpholino)ethane sulfonate, tris(hydroxymethyl)glycine, a  
tris(hydroxymethyl)glycine salt  
tris(hydroxymethyl)aminomethane, a  
tris(hydroxymethyl)aminomethane salt, imidazole, and  
colicin.
2. The glucose sensor in accordance with claim  
1, wherein said glucose dehydrogenase is coated with said  
additive.
3. A method for stabilizing glucose

dehydrogenase for use in glucose sensors, wherein at least one additive is added to glucose dehydrogenase whose coenzyme is pyrrolo-quinoline quinone, said additive being selected from the group consisting of phthalic acid, a phthalate, maleic acid, a maleate, succinic acid, a succinate, triethanol amine, a triethanol amine salt, citric acid, a citrate, dimethyl glutaric acid, 2-(N-morpholino)ethane sulfonic acid, a 2-(N-morpholino)ethane sulfonate, tris(hydroxymethyl)glycine, a tris(hydroxymethyl)glycine salt, tris(hydroxymethyl)aminomethane, a tris(hydroxymethyl)aminomethane salt, imidazole, and colicin.

4. A glucose dehydrogenase composition for use in glucose sensors, said composition containing glucose dehydrogenase whose coenzyme is pyrrolo-quinoline quinone and at least one additive selected from the group consisting of phthalic acid, a phthalate, maleic acid, a maleate, succinic acid, a succinate, triethanol amine, a triethanol amine salt, citric acid, a citrate, dimethyl glutaric acid, 2-(N-morpholino)ethane sulfonic acid, a 2-(N-morpholino)ethane sulfonate, tris(hydroxymethyl)glycine, a tris(hydroxymethyl)glycine salt, tris(hydroxymethyl)aminomethane, a tris(hydroxymethyl)aminomethane salt, imidazole, and colicin.

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